



SEQUENCE LISTING

<110> TRANSGENE SA
ERBS, Philippe

<120> Polypeptide having an improved Cytosine deaminase activity

<130> D21447

<140> PCT/IB2004/002505
<141> 2004 - 06 - 29

<150> US 60/508 274
<151> 2003-10-06

<150> EP 03/360 087
<151> 2003-07-21

<160> 2

<170> PatentIn Ver. 2.1

<210> 1
<211> 373
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence :Fusion protein having a CDase activity

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Ile Ala Tyr Glu Glu Ala Ala Leu Gly Tyr Lys Glu Gly Gly Val Pro
20 25 30

Ile Gly Gly Cys Leu Ile Asn Asn Lys Asp Gly Ser Val Leu Gly Arg
35 40 45

Gly His Asn Met Arg Phe Gln Lys Gly Ser Ala Thr Leu His Gly Glu
50 55 60

Ile Ser Thr Leu Glu Asn Cys Gly Arg Leu Glu Gly Lys Val Tyr Lys
65 70 75 80

Asp Thr Thr Leu Tyr Thr Leu Ser Pro Cys Asp Met Cys Thr Gly
85 90 95

Ala Ile Ile Met Tyr Gly Ile Pro Arg Cys Val Val Gly Glu Asn Val
 100 105 110
 Asn Phe Lys Ser Lys Gly Glu Lys Tyr Leu Gln Thr Arg Gly His Glu
 115 120 125
 Val Val Val Val Asp Asp Glu Arg Cys Lys Ile Met Lys Gln Phe
 130 135 140
 Ile Asp Glu Arg Pro Gln Asp Trp Phe Glu Asp Ile Gly Glu Ala Ser
 145 150 155 160
 Glu Pro Phe Lys Asn Val Tyr Leu Leu Pro Gln Thr Asn Gln Leu Leu
 165 170 175
 Gly Leu Tyr Thr Ile Ile Ser Asn Lys Asn Thr Thr Arg Pro Asp Phe
 180 185 190
 Ile Phe Tyr Ser Asp Arg Ile Ile Arg Leu Leu Val Glu Glu Gly Leu
 195 200 205
 Asn His Leu Pro Val Gln Lys Gln Ile Val Glu Thr Asp Thr Asn Glu
 210 215 220
 Asn Phe Glu Gly Val Ser Phe Met Gly Lys Ile Cys Gly Val Ser Ile
 225 230 235 240
 Val Arg Ala Gly Glu Ser Met Glu Gln Gly Leu Arg Asp Cys Cys Arg
 245 250 255
 Ser Val Arg Ile Gly Lys Ile Leu Ile Gln Arg Asp Glu Glu Thr Ala
 260 265 270
 Leu Pro Lys Leu Phe Tyr Glu Lys Leu Pro Glu Asp Ile Ser Glu Arg
 275 280 285
 Tyr Val Phe Leu Leu Asp Pro Met Leu Ala Thr Gly Gly Ser Ala Ile
 290 295 300
 Met Ala Thr Glu Val Leu Ile Lys Arg Gly Val Lys Pro Glu Arg Ile
 305 310 315 320
 Tyr Phe Leu Asn Leu Ile Cys Ser Lys Glu Gly Ile Glu Lys Tyr His
 325 330 335
 Ala Ala Phe Pro Glu Val Arg Ile Val Thr Gly Ala Leu Asp Arg Gly
 340 345 350
 Leu Asp Glu Asn Lys Tyr Leu Val Pro Gly Leu Gly Asp Phe Gly Asp
 355 360 365
 Arg Tyr Tyr Cys Val
 370

<210> 2
 <211> 216
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 <213> *Saccharomyces cerevisiae*

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 Met Ser Ser Glu Pro Phe Lys Asn Val Tyr Leu Leu Pro Gln Thr Asn
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Gln Leu Leu Gly Leu Tyr Thr Ile Ile Ser Asn Lys Asn Thr Thr Arg
 20 25 30

Pro Asp Phe Ile Phe Tyr Ser Asp Arg Ile Ile Arg Leu Leu Val Glu
 35 40 45

Glu Gly Leu Asn His Leu Pro Val Gln Lys Gln Ile Val Glu Thr Asp
 50 55 60

Thr Asn Glu Asn Phe Glu Gly Val Ser Phe Met Gly Lys Ile Cys Gly
 65 70 75 80

Val Ser Ile Val Arg Ala Gly Glu Ser Met Glu Gln Gly Leu Arg Asp
 85 90 95

Cys Cys Arg Ser Val Arg Ile Gly Lys Ile Leu Ile Gln Arg Asp Glu
 100 105 110

Glu Thr Ala Leu Pro Lys Leu Phe Tyr Glu Lys Leu Pro Glu Asp Ile
 115 120 125

Ser Glu Arg Tyr Val Phe Leu Leu Asp Pro Met Leu Ala Thr Gly Gly
 130 135 140

Ser Ala Ile Met Ala Thr Glu Val Leu Ile Lys Arg Gly Val Lys Pro
 145 150 155 160

Glu Arg Ile Tyr Phe Leu Asn Leu Ile Cys Ser Lys Glu Gly Ile Glu
 165 170 175

Lys Tyr His Ala Ala Phe Pro Glu Val Arg Ile Val Thr Gly Ala Leu
 180 185 190

Asp Arg Gly Leu Asp Glu Asn Lys Tyr Leu Val Pro Gly Leu Gly Asp
 195 200 205

Phe Gly Asp Arg Tyr Tyr Cys Val
 210 215